EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF THE EXISTING CORRUGATED GALVANIZED METAL PIPE ARCH CULVERT (CGMPAC) WITH A PRE-CAST CONCRETE BOX CULVERT, ALONG WITH MINIMAL APPROACH AND CHANNEL WORK. BRIDGE #9 IS LOCATED IN THE TOWN OF FAIRLEE ON VT RT 244, APPROXIMATELY 1.0 MILES WEST OF ITS INTERSECTION WITH US RT 5. THE NEW CULVERT WILL BE A CONCRETE BOX APPROXIMATLY 50' LONG, 4' TALL AND 8' WIDE. THE NEW CULVERT WILL BE ON THE SAME ALIGNMENT, AT A 57° SKEW FROM THE CENTERLINE TANGENT. ALL SLOPES AND ALL VEGETATION WILL BE RETURNED TO THEIR ORIGINAL CONDITION THROUGH STANDARD SEED AND MULCH PRACTICES. STONE FILL TYPE III WILL BE USED TO STABILIZE THE RIVER BANKS. EXISTING STONE FILL WILL BE STABILIZED, WITHIN THE STONE FILL LIMITS, WHERE DEEMED NECESSARY BY THE RESIDENT ENGINEER.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 0.36 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED VEGETATION WITH MODERATE TO STEEP SLOPES, AND A HILLY TO MOUNTAINOUS DRAINAGE BASIN. THE WATER RUNOFF SHOULD BE MINIMAL AND BE LIMITED TO THE PROJECT AREA DUE TO THE NATURE OF THE SURROUNDING TERRAIN.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THERE ARE NO OTHER WATER BODIES OR WETLANDS WITHIN THE PROJECT AREA. THERE ARE NO STRUCTURES UPSTREAM FROM BRIDGE 9. A REINFORCED CONCRETE PIPE WITH A WATERWAY OPENING OF 19.5 SQUARE FEET IS LOCATED 4,000 FEET DOWNSTREAM FROM BRIDGE 9.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS

THE TOPOGRAPHY OF THE PROJECT SITE IS HILLY, MOSTLY FORESTED WITH SOME OPEN AREAS. THE LAND AT THE PROJECT SITE HAS MODERATE SLOPES WITH STEEP RIVER BANKS. THERE ARE NO RESIDENTIAL IMPACTS IN THE IMMEDIATE AREA.

1.2.4 VEGETATION

THE VEGETATION IN THE PROJECT AREA IS MADE UP OF FORESTED AREAS WITH SOME CLEARINGS NEAR THE SITE. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS AFFECTED BY REPLACEMENT OF THE EXISTING CULVERT.

AFTER THE PROJECT IS FINISHED THE SLOPES WILL BE STABILIZED WITH STONE FILL AND VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.5 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF ORANGE, VERMONT. THE PROJECT AREA IS UNDERLAIN BY THE CABOT SOIL SERIES WHICH IS CHARACTERIZED AS A VERY STONY SILT LOAM, SLOPES = 3% TO 15%, THE SOIL HAS A "K FACTOR" = 0.32. THE SOIL IS CONSIDERED MODERATELY ERODABLE.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL: 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

1.2.6 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: NO
WETLANDS: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF CONSTRUCTION GENERAL PERMIT 3-9020 BASED ON THE PROJECT IMPACT AREA. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL REFER TO THE VTRANS EROSION PREVENTION AND SEDIMENT CONTROL PLAN CHECKLIST TO DEVELOP THE EPSC PLAN. THIS CHECKLIST SHALL BE OBTAINED FROM THE ENGINEER.

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT.

1.4.1 MARK SITE BOUNDARIES
PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

1.4.2 LIMIT DISTURBANCE AREA
THE CONTRACTOR SHALL ESTABLISH THE LIMITS OF CONSTRUCTION ACCORDING TO THE CONTRACT. ALL EFFORTS SHALL BE MADE TO MINIMIZE EARTH DISTURBANCE.

1.4.3 STABILIZE CONSTRUCTION EXIT
STABILIZED CONSTRUCTION ENTRANCES SHALL BE UTILIZED AS ACCEPTED IN THE EPSC PLAN.

1.4.4 INSTALL SILT FENCE
SILT FENCE SHALL BE INSTALLED ACCORDING TO THE ACCEPTED EPSC PLAN OR AS NECESSARY. IT SHALL BE NOTED THAT SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

1.4.5 DIVERT UPLAND RUNOFF
UPLAND RUNOFF SHALL BE DIVERTED AROUND THE PROJECT AS APPROPRIATE.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF
CHANNELIZED RUNOFF SHALL BE TREATED AS NECESSARY.

1.4.7 CONSTRUCT PERMANENT CONTROLS
STONE FILL TYPE III SHALL BE USED TO STABILIZE PROPOSED SLOPES.

STREAM BANK VEGETATION WILL BE INTRODUCED IN THE GRUBBING MATERIAL THAT IS TO BE PLACED OVER THE STREAM BANK STONE FILL.

TEMPORARY EROSION CONTROL MATTING SHALL BE APPLIED TO THE LENGTH OF THE GRASS SWALE IN ORDER TO ESTABLISH GRASS. THIS IS A FINAL CONDITION TO BE APPLIED AFTER SEED, FERTILIZER, MULTCH, AND TOPSIOL.

1.4.8 STABILIZE EXPOSED SOILS
UTILIZE STABILIZATION METHODS SUCH AS SEED AND MULCH OR METHODS AS ACCEPTED BY THE ENGINEER. STABILIZATION METHODS SHALL BE APPLIED TO EXPOSED EARTH WITHIN 48 HOURS OF EARTH DISTURBANCE. PAYMENT FOR TEMPORARY SOIL STABILIZATION WILL BE MADE UNDER ITEM 900.650, "SPECIAL PROVISION (EROSION PREVENTION AND SEDIMENT CONTROL MEASURES)(N.A.B.I.)".

1.4.9 WINTER STABILIZATION
WINTER WORK IS NOT ANTICIPATED.

1.4.10 STABILIZE SOIL AT FINAL GRADE
ALL DISTURBED AREAS SHALL RECEIVE TOPSOIL, SEED AND MULCH TO ESTABLISH VEGETATION. SEEDING SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS. PAYMENT FOR TURF ESTABLISHMENT WILL BE MADE UNDER SECTION 651 OF THE SPECIFICATIONS.

1.4.11 DE-WATERING ACTIVITIES
ANY NECESSARY DEWATERING SHALL BE PERFORMED AS INIDICATED IN THE ACCEPTED EPSC PLAN.

1.4.12 INSPECT YOUR SITE
INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	STP CULV (13)
FILE NAME: s08c060ecnotes.dgn	PLOT DATE: 11-MAR-2009
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: L.J.STONE
DESIGNED BY: L.J.STONE	CHECKED BY: E.L.RUSTAY
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